APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,202	05/30/2001	Senis Busayapongchai	BELL-0095/00409	7862

		EXAMINER
7590 04/13/2004		WOZNIAK, JAMES S

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ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/870,202		BUSAYAPONGCHAI ET AL.
	Examiner		Art Unit
	James S. Wozniak		2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03/05/04</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 May 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. <u>12</u>.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Response to Amendment

1.   In response to the office action from 12/5/03, the applicant has submitted an amendment,

filed 3/5/04, amending Claims 1, 10, 12, and 13, while arguing to traverse the art rejection based

on the limitation regarding "storing a context of [a] first subject application in a context table"

(Amendment, Pages 5-6).

Applicant's arguments have been considered but are moot in view of the new ground(s)

of rejection, necessitated by the amended claims, based on Wang et al *(U.S. Patent: 6,505,162)*.

2.   Based on the amendment to Claim 10, the examiner has withdrawn the previous 35 USC

§ 112, second paragraph, rejection directed towards lack of antecedent basis.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   **Claims 1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas

(U.S. Patent: 5,812,977) in view of Wang et al *(U.S. Patent: 6,505,162)*.

With respect to **Claim 1**, Douglas discloses:

A method of speech recognition processing that provides audible information over a communications device comprising *(user speech interface with a computer using a microphone as a communication means, Col. 5, Lines 52-60)*:

Receiving a first speech input indicative of a first subject area *(Fig. 3, Elements 76, 78, and 80)*;

Initiating a first subject application associated with said first subject area *(Fig. 3, Element 88) (subroutine initiation upon reception of a speech input, Col. 7, Lines 38-49)*;

Receiving a second speech input indicative of a second subject area *(ability to access more than one task subroutine interchangeably during a user session, Col. 9, Lines 43-44)*; Storing at least one indicator indicating a current processing step of said first subject application *(suspension of the present subroutine upon reception of a new task initiation command; "held in suspension" suggests a well-known means, to one of ordinary skill in the art, of storing the progress of the first subroutine so as to return to a particular point of progress when the second application has been terminated, Col. 9, Lines 51-56)*.

Douglas does not disclose a method for storing context data of a first application in a context table, however Wang discloses:

Storing a current context associated with the first subject application in a context table *(hierarchical task description table used to store dialogue states, Col. 3, Lines 51-52, and executed information from a previous application for use upon completing a task, Col. 6, Lines 50-61)*.

Douglas and Wang are analogous art because they are from a similar field of endeavor in

speech-controlled systems. Thus, it would have been obvious to a person of ordinary skill in the

art, at the time of invention, to combine the ability to store dialog states and executed

information associated with a task in a table as taught by Wang with the speech-enabled

command method that provides switching between applications while storing an indicator for

return to the present application upon completion of another task as taught by Douglas to provide

a means of easily storing, organizing, and accessing task data in a table format to enable a user to

switch between multiple speech applications without having to restart a particular task.

Therefore, it would have been obvious to combine Wang with Douglas for the benefit of

obtaining a command recognition method in which a user can switch between multiple

applications without having to restart a particular task due to task data (task progress) stored in

an organized and accessible table, to obtain the invention as specified in Claim 1.

With respect to **Claim 2**, Douglas additionally recites:

The method according to claim 1, further comprising initiating a second subject

application associated with said second subject area *(example of a calculator subroutine*

(associated with the spoken command "calculator") initiated while a "reconcile bank account"

subroutine is suspended, Col. 9, Lines 47-56).

With respect to **Claim 3**, Douglas further discloses:

The method according to claim 1, further comprising initiating a task agent for said first

subject application *(task association and initiation through vocabulary word recognition, Col. 5,*

Line 67- Col. 6, Line 12, and task implementation through the use of windows, Col. 8, Lines 60-

65).

With respect to **Claim 4**, Douglas further recites:

The method according to claim 1, further comprising monitoring said first speech input for at

least one word indicative of said second subject area *(recognition and initiation of a help*

subroutine at any time during task execution, Col. 7, Line 63-Col. 8, Line 8).

With respect to **Claim 5**, Douglas additionally recites:

The method according to claim 1, further comprising suspending said first subject

application after receiving said second speech input *(Col. 9, Lines 51-56).*

With respect to **Claim 6**, Douglas further discloses:

The method according to claim 5, further comprising: receiving a further speech input,

and re-activating said first subject application responsive to the further speech input *(speech*

input of "end task" during the "calculator" application, which returns the system to the

"reconcile bank account" subroutine, Col. 9, Lines 51-59).

With respect to **Claim 7**, Douglas additionally recites:

The method according to claim 1, wherein said storing at least one indicator further comprises

storing a series of indicators that indicate a processing path of said first application *(use of a*

pointer, referring to the initial speech input, during the help subroutine such that the system

knows at all times of the task sequence, what specific computer instruction is being executed,

Col. 8, Lines 2-9).

With respect to **Claim 8**, Douglas additionally discloses:

The method according to claim 7, further comprising outputting a computer-generated

representation of said stored series of indicators that indicates said processing path of said first

application ("pointer" discussed above and indicative of each particular step of the "create a

memo" subroutine, is represented in the form of an output fax or printed document of the entire

memo created by the process, Col. 8, Lines 27-37).

With respect to **Claim 9**, Douglas further discloses:

The method according to claim 1, further comprising outputting information associated

with said first application in a first voice *(synthesized or recorded voice response to task*

verification, Col. 6, Lines 33-37).

With respect to **Claim 10**, Douglas additionally suggests:

The method according to claim 9, further comprising outputting information associated

with a second application in a second voice, said second voice being distinguishable from said

first voice (recorded voice that verifies commands in response to a system subroutine, Col. 6,

Lines 30-37, and the ability of the user to specify reaction to system tasks, Col. 9, Line 66-Col.

10, Line 1, which implies an ability to select a recorded voice in association with a specific task

response as a means of better identifying its function. Therefore, it would have been obvious to

one of ordinary skill in the art, at the time of invention, to assign a specific voice, specified by

user preference, with a task so as to offer an audible means of easily distinguishing between

system tasks.).

With respect to **Claim 11**, Douglas further recites:

The method according to claim 1, further comprising synthesizing speech for outputting speech

from said first application *(synthesized voice response to task verification, Col. 6, Lines 33-37).*

With respect to **Claim 12**, Douglas discloses:

A speech recognition system comprising:

A speech recognition module that processes speech input and translates said speech input into computer-readable input *(conditioning circuit, Col. 5, Lines 54-58, Fig. 1, Element 22)*;

A control manager comprising: a module that interfaces between said speech input and at least one of a plurality of application programs *(CPU, Col. 5, Line 63-Col. 6, Line 9, Fig. 1, Element 30)*;

A module that initiates processing of a first application program *(CPU, Col. 6, Lines 6-9, Fig. 1, Element 30)*;

A module that monitors said speech input for a request to initiate a second application program *(recognition unit, Col. 6, Lines 3-9, Fig. 1, Element 24, and above example of a calculator subroutine (associated with the spoken command "calculator") recognized by the recognition unit while a "reconcile bank account" subroutine is suspended, Col. 9, Lines 47-56)*; and

A speech synthesizing module for providing output information from said plurality of application programs *(CPU, Fig.1, Element 30, Speaker, Fig. 1, Element 26, and synthesized voice response to task verification, Col. 6, Lines 33-37)*.

Douglas does not disclose a method for storing context data of a first application in a context table, however Wang discloses:

A module that stores a current context of the first application program in a context table *(hierarchical task description table used to store dialogue states, Col. 3, Lines 51-52, and executed information from a previous application for use upon completing a task, Col. 6, Lines 50-61)*.

Douglas and Wang are analogous art because they are from a similar field of endeavor in

speech-controlled systems. Thus, it would have been obvious to a person of ordinary skill in the

art, at the time of invention, to combine the ability to store dialog states and executed

information associated with a task in a table as taught by Wang with the speech-enabled

command system capable of switching between applications while storing an indicator for return

to the present application upon completion of another task as taught by Douglas to provide a

means of easily storing, organizing, and accessing task data in a table format to enable a user to

switch between multiple speech applications without having to restart a particular task.

Therefore, it would have been obvious to combine Wang with Douglas for the benefit of

obtaining a command recognition system in which a user can switch between multiple

applications without having to restart a particular task due to task data (task progress) stored in

an organized and accessible table, to obtain the invention as specified in Claim 12.

With respect to **Claim 13**, Douglas teaches the speech-enabled command system and

method capable of switching between applications while storing an indicator for return to the

present application upon completion of another task, as applied to Claim 12. Douglas does not

teach storing contexts related to a first and second application in a context table, however Wang

discloses:

The system according to claim 12, wherein the context table maintains a first current

context for said first application program and a second current context for said second

application *(storing information from a present application (task 2), previously having stored*

information from a previous task (task 1) in a hierarchical task description table, Col. 6, Lines

50-61, and stored information related to various subroutines, Fig. 8a.)

Douglas and Wang are analogous art because they are from a similar field of endeavor in speech-controlled systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the ability to store task information related to individual applications as taught by Wang with the speech-enabled command system and method capable of switching between applications while storing an indicator for return to the present application upon completion of another task as taught by Douglas to provide a means of easily storing, organizing, and accessing task data associated with a particular application in a table format to enable a user to switch between multiple speech applications without having to restart a particular task. Therefore, it would have been obvious to combine Wang with Douglas for the benefit of obtaining a command recognition system and method in which a user can switch between multiple applications without having to restart a particular task due to task data (task progress) stored in an organized and accessible table, to obtain the invention as specified in Claim 13.

With respect to **Claim 14**, Douglas further recites:

The system according to claim 12, further comprising a plurality of task agents, each task agent associated with one of said plurality of application programs *(task association and initiation through the recognition of various vocabulary words, Col. 5, Line 67- Col. 6, Line 12, and task implementation through the use of windows, Col. 8, Lines 60-65)*.

With respect to **Claim 15**, Douglas additionally recites:

The system according to claim 14, wherein the control manager is adapted to assign said application programs to said task agents, and switch control among said task *agents (task*

implementation through windows and vocabulary word association as applied to Claim 14 and

the multiple system tasks listed in Table 1 and stored in the CPU, Col. 7, Lines 20-22).

With respect to **Claim 16**, Douglas further shows:

The system according to claim 12, wherein the request comprises a control word

(list of representative command words corresponding to subroutine initiation found in Table 1).

With respect to **Claim 17**, Douglas additionally discloses:

The system according to claim 12, wherein the control manager is adapted to suspend

said first application program, and initiate processing of said second application program,

responsive to the request *(Col. 9, Lines 51-56).*

With respect to **Claim 18**, Douglas further recites:

The system according to claim 17, wherein the control manager is adapted to re-activate

said first application program responsive to a further request *(speech input of "end task" during*

the "calculator" application, which returns the system to the "reconcile bank account"

subroutine, Col. 9, Lines 51-59).

With respect to **Claim 19**, Douglas further discloses:

The system according to claim 12, wherein the control manager is adapted to store at

least one indicator indicative of a current processing step of at least one of said plurality of

application programs *(use of a pointer, referring to the initial speech input, during the help*

subroutine such that the system knows at all times of the task sequence, what specific computer

instruction is being executed, Col. 8, Lines 2-9).

With respect to **Claim 20**, Douglas additionally suggests:

A computer-readable medium for storing computer-executable instructions for performing the

method of claim 1 *(a voice control interface realized using a computer, Col. 5, Lines 49-52; and*

the well-known method, to one skilled in the art, of initiating a computer process through the use

of a program held on a storage medium common to a personal computer, for example, a CD-

ROM or floppy drive).

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669

and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-

Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Talivaldis Ivars Smits can be reached at (703) 306-3011. The fax/phone number for

the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the technology center receptionist whose telephone number is (703) 306-

0377.

James S. Wozniak
4/7/04

TALIVALDIS IVARS SMITS
PRIMARY EXAMINER